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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,094	08/26/2003	Lawrence J. Mann	56319US006	2746

32692 7590 11/16/2006

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EXAMINER	
SALVATORE, LYNDA	

ART UNIT	PAPER NUMBER
1771	

DATE MAILED: 11/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/648,094	MANN ET AL.	
	Examiner	Art Unit	
	Lynda M. Salvatore	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *8/23/06*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-47* is/are pending in the application.

4a) Of the above claim(s) *38-47* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's amendment and accompanying remarks filed 8/23/06 have been fully considered and entered. Claim 13 has been amended as requested. Applicant's amendment to claim 13 is found sufficient to overcome the obviousness rejections set forth in section 8 of the Office Action dated 3/23/06. Specifically, the combination of prior art fails to teach the binder limitations presently set forth. As such, the rejections of claims 13-22 are hereby withdrawn. However, Applicant's amendments are not found patently distinguishable and Applicant's arguments are not found persuasive of patentability. In addition, upon further consideration of Applicant's amendment to claim 13, the following necessitated new ground of rejection is set forth herein below.

Election/Restrictions

2. Applicant's election with traverse of group I, claims 1-22 in the reply filed on 8/23/06 is acknowledged. The traversal is on the ground(s) that the claims in Group I and II are so interrelated that the search of Group I would be coextensive of Group II. This is not found persuasive because independent method claim 38 recites limitations not present in independent article claim 1. For example, claim 38 recites limitations directed to the thickness of the web, a work surface, and manipulative method steps of frictionally engaging the work surface and inducing motion between the cleaning article and the soiled surface. As such, it is the position of the Examiner that the search required for the article claims 1-22 is not coextensive with the search required for method claims 38-47.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1-6 and 8-12 stand rejected under 35 U.S.C. 103(a) as obvious over Riedesel, US 2,542,058 in view of McDonell et al., US 5,282,900.

Applicant argues that the binder materials of Riedesel do not have the claimed glass transition temperatures on the grounds that the binders of Riedesel are cross-linked polymers. Applicant points to the disclosed alkyd resins and polyvinyl resins and submits that said binders do not have the claimed glass transition temperature range. In response, the Examiner asserts that this argument may be valid for the cross-linked binders, however, Applicant does not comment on the other binder materials disclosed by Riedesel. Riedesel also teaches polystyrene and ethyl cellulose binders (column 4, 20-25, 58-60).

Applicant is also reminded that the arguments of counsel cannot take the place of evidence in the record. In re Schulze, 346 F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965); In re Geisler, 116 F.3d 1465, 43 USPQ2d 1362 (Fed. Cir. 1997) ("An assertion of what seems to follow from common experience is just attorney argument and not the kind of factual evidence that is required to rebut a prima facie case of obviousness."). See MPEP § 716.01(c) for examples of attorney statements which are not evidence and which must be supported by an appropriate affidavit or declaration. Riedesel also teaches polystyrene and ethyl cellulose binders (column 4, 20-25, 58-60).

Applicant further argues that Riedesel teaches that softer binder materials are to be avoided because of their lack of required strength. In response, the Examiner agrees that Riedesel

teaches avoiding softer binder materials such as polyvinyl butyral with an excessively high proportion of phenol-aldehyde resin, but does not disclose avoiding polystyrene and ethyl cellulose binders. Thus, this argument is also not found persuasive.

The patent issued to Riedesel teaches a polishing sheet comprising a flexible backing, a binder and resilient particles (column 1, 39-46). Riedesel specifically, teaches coating the backing layer with adhesive binder and pressing the resilient particles into said binder (column 1, 40-45). With regard to claims 3-4, Riedesel illustrate in figure 2 co-extensively coating the binder onto the surface of the backing material. With specific regard to claim 5, Riedesel teaches that the fabric backing is filled or impregnated with the binder material (column 4, 20-35). Suitable backing materials include fibrous webs (column 4, 59-66). Suitable resilient particle material includes vulcanized rubber (column 5, 60-65).

Riedesel does not explicitly teach the Shore A hardness range of the rubber particles as set forth in claims 1, 6 and 11, however, it is reasonable to expect that the rubber particles taught by Riedesel would exhibit claimed hardness properties. Support for said presumption is found in the use of like materials such as rubber particles. The burden is upon the Applicant to prove otherwise.

Riedesel also does not explicitly teach the glass transition range as set forth in claims 1, 8-10, however, it is reasonable to expect that the binder materials taught by Riedesel would exhibit claimed glass transition temperature properties. Support for said presumption is found in the use of like materials such as a binder used to fix rubber particles to the surface of flexible fibrous backing. The burden is upon the Applicant to prove otherwise.

Riedesel fails to teach the claimed three-dimensional non-woven web, however, the patent issued to McDonell et al., teach a non-woven surface treating article comprising an open lofty non-woven web (abstract). McDonell et al., teach an entangled web comprising thermoplastic organic fibers (column 10, 19-25). McDonell et al., teach employing larger denier fibers to produce thick lofty webs. McDonell et al., specifically teach that thinner webs are more easily loaded with chemical and debris from the surface being treated.

Therefore, motivated by the desire to provide a thick and lofty cleaning or polishing article, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the polishing sheet of Riedesel with the three-dimensional non-woven web taught by McDonell et al.

With regard to the claimed aspect ratio range of 1:1 to about 2:1 as set forth in claim 12, it would have been obvious to one having ordinary skill in the art at the time the invention was made to optimize the aspect ratio and particle size to provide the desired frictional and/or abrasive cleaning properties. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233

5. Claim 7 stands rejected under 35 U.S.C. 103(a) as obvious over Riedesel, US 2,542,058 in view of McDonell et al., US 5,282,900 as applied to claim 1 above and further in view of Hiroyuki, JP 79007996B.

The rejection of claim 1 from which claim 7 depends is maintained and Applicant has not presented any new arguments for which to consider.

The combination of prior art fails to teach the claimed web density, however, the published Japanese patent abstract discloses a bulky non-woven fabric comprising binder and abrasive particles fixed to the surface. The density of the web is disclosed as ranging from .05-.1 g/cm^3.

Therefore, motivated by the desire to provide a cleaning article with a non-woven substrate layer, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the bulky three-dimensional non-woven substrate in the cleaning article taught by the combination of Riedesel in view of McDonell et al., with a suitable density as taught by the published Japanese abstract.

6. Claims 13-17 and 19-22 are rejected under 35 U.S.C. 103(a) as obvious over Riedesel, US 2,542,058 in view of JP 60034659A and further in view of McDonell et al., US 5,282,900.

The patent issued to Riedesel teaches a polishing sheet comprising a flexible backing, a binder and resilient particles (column 1, 39-46). Riedesel specifically, teaches coating the backing layer with adhesive binder and pressing the resilient particles into said binder (column 1, 40-45). With regard to claims 15-16, Riedesel illustrate in figure 2 co-extensively coating the binder onto the surface of the backing material. With specific regard to claim 17, Riedesel teaches that the fabric backing is filled or impregnated with the binder material (column 4, 20-35). Suitable backing materials include fibrous webs (column 4, 59-66). Suitable resilient particle material includes vulcanized rubber (column 5, 60-65).

Riedesel does not explicitly teach the Shore A hardness range of the rubber particles as set forth in claim 13, however, it is reasonable to expect that the rubber particles taught by Riedesel would exhibit claimed hardness properties. Support for said presumption is found in the

use of like materials such as rubber particles. The burden is upon the Applicant to prove otherwise.

Riedesel fails to specifically teach the claimed binder materials set forth in claim 13, however, the published JP abstract teaches a binder composition comprising rubber, styrene/butadiene. Said binder material exhibits uniform and strong adhesion to non-woven fabrics to produce a fabric with improved strength and flexing resistance.

Therefore, motivated by the desire to bond a fibrous web with a binder having a uniform and strong adhesion as well as improved strength and flexing resistance, it would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the binder of Riedesel with the styrene butadiene binder taught in the published JP abstract.

The published JP abstract does not explicitly teach the glass transition range as set forth in claims 13 and 19-21, however, it is reasonable to expect that the styrene butadiene binder taught in the published JP abstract would exhibit claimed glass transition temperature properties. Support for said presumption is found in the use of like materials such as styrene butadiene binder used to fix rubber particles to the surface of flexible fibrous backing. The burden is upon the Applicant to prove otherwise.

The combination of Riedesel in view of the JP abstract fails to teach the claimed three-dimensional non-woven web, however, the patent issued to McDonell et al., teach a non-woven surface treating article comprising an open lofty non-woven web (abstract). McDonell et al., teach an entangled web comprising thermoplastic organic fibers (column 10, 19-25). McDonell et al., teach employing larger denier fibers to produce thick lofty webs. McDonell et al.,

specifically teach that thinner webs are more easily loaded with chemical and debris from the surface being treated.

Therefore, motivated by the desire to provide a thick and lofty cleaning or polishing article, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the polishing sheet taught by the combination of Riedesel in view of the published JP abstract with the three-dimensional non-woven web taught by McDonell et al.

With regard to the claimed aspect ratio range of 1:1 to about 2:1 as set forth in claim 22, it would have been obvious to one having ordinary skill in the art at the time the invention was made to optimize the aspect ratio and particle size to provide the desired frictional and/or abrasive cleaning properties. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233

7. Claim 18 is rejected under 35 U.S.C. 103(a) as obvious over Riedesel, US 2,542,058 in view of JP 60034659A and further in view of McDonell et al., US 5,282,900 as applied to claim 13 above and further in view of Hiroyuki, JP 79007996B.

The combination of prior art fails to teach the claimed web density, however, the published Japanese patent abstract discloses a bulky non-woven fabric comprising binder and abrasive particles fixed to the surface. The density of the web is disclosed as ranging from .05-.1 g/cm^3.

Therefore, motivated by the desire to provide a cleaning article with a non-woven substrate layer, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the bulky three-dimensional non-woven substrate in the cleaning

article taught by the combination of Riedesel in view of the published JP abstract and further in view of McDonell et al., with a suitable density as taught by the published Japanese abstract 996B'.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynda M. Salvatore whose telephone number is 571-272-1482. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

November 7, 2006
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